CLAIMS

1. A method for attaching a sensing device to a substrate at a pre-determined distance from the substrate comprising:

providing a compliant adhesive;

depositing a first layer of the compliant adhesive onto the substrate;

curing the first layer of the compliant adhesive;

depositing a second layer of the compliant adhesive directly onto the first layer of the compliant adhesive;

inserting the sensing device into the second layer of the compliant adhesive; and

curing the second layer of the compliant adhesive.

2. The method of claim 1 including the step of controlling the thickness of the first layer of the compliant adhesive such that the first layer of the compliant adhesive cures to a specified thickness.

3. The method of claim 2 wherein the sensing device is inserted into the second layer of the compliant adhesive until the sensing device contacts the first layer of compliant adhesive, thereby attaching the sensing device to the substrate at a pre-determined distance from the substrate.

4. The method of claim 3 wherein the first and second layers of the compliant adhesive are deposited by screen printing.

5. The method of claim 4 wherein the first and second layers of the compliant adhesive are placed in a pattern to provide adequate support for the low pressure sensing device.

6. A sensing device attached at a pre-determined distance from a substrate comprising;

a first layer of a compliant adhesive attached to the substrate and having a pre-determined thickness;

a sensor mounted to said first layer of said compliant adhesive;

a second layer of said compliant adhesive disposed between said sensor and said first layer of said compliant adhesive to secure said sensor to said first layer of said compliant adhesive.

7. The sensing device of claim 6 wherein said first layer and said second layer of said compliant adhesive each have a thickness, said thickness of said second layer being less than said thickness of said first layer.

8. The sensing device of claim 7 wherein said compliant adhesive is a gasoline- resistant, silicon-based adhesive.

9. The sensing device of claim 8 wherein said sensor is a fuel tank pressure transducer mountable to the interior of a vehicle gasoline tank that senses vapor pressure within the gas tank.